



State of Utah

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TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: James D. Smith, Senior Reclamation Specialist *JDS*

RE: 2001 Third Quarter Water Monitoring, Energy West Mining Company, Deer Creek Mine, C/015/018-WQ01-3

1. Were data submitted for all of the MRP required sites? YES [] NO [X]

Identify sites not monitored and reason why, if known:

79-23, 79-24, and 80-43 were dry and 80-44 had <0.5 gpm flow during the third quarter;

79-26: no water-quality data reported.

RFC2: dry in September;

MFA01: dry all quarter:

2. On what date does the MRP require a five-year resampling of baseline water data.

See Technical Directive 004 for baseline resampling requirements. Consider the five-year baseline resubmittal when responding to question one above. Indicate if the MRP does not have such a requirement.

Resampling Due Date

Renewal submittal due 10/07/00, renewal due 2/07/01. Baseline analyses were performed in 1996 and will be repeated every 5 years, i.e., baseline analyses were to have been done in 2001, and the next will be done in 2006.

3. Were all required parameters reported for each site? YES [] NO [X]

Comments, including identity of monitoring site:

Nitrate was reported as nitrate + nitrite during EDI; MAIN N MAIN E: field specific conductivity, and field pH were not reported; TW-10: field specific conductivity, and field pH

were not reported; Flow at HCC01 is measured daily by Utah Power and reported by PacifiCorp in the Annual Report.

Monthly MRP analyses at the two UPDES points did not include baseline parameters. (Oil and grease is reported in the DMRs rather than as an operational parameter, and analysis for oil and grease is done only if there is a visible sheen on the water.)

4. Were irregularities found in the data?

YES ☒ NO ☐

Comments, including identity of monitoring site:

MAIN N MAIN E: dissolved Mg (n = 17), sulfate (n = 43), total hardness (n = 34), and lab specific conductivity (n = 34) were outside the two standard deviation range

79-2: field specific conductivity (n = 20) was outside the two standard deviation range;

79-10: field specific conductivity (n = 32) was outside the two standard deviation range;

79-15: field specific conductivity (n = 20) was outside the two standard deviation range;

79-28: field specific conductivity (n = 18) and total Fe (n = 10) were outside the two standard deviation range;

79-35: field specific conductivity (n = 28) was outside the two standard deviation range;

80-41: Mo (n = 1, 1 non-detect) was detected above the MDL;

80-46: field specific conductivity (n = 7) was outside the two standard deviation range;

80-47: dissolved Zn (n = 1, 3 non-detects) was detected above the MDL;

80-50: Mo (n = 1, 2 non-detects) was detected above the MDL;

82-51: Mo (n = 1, 1 non-detect), ortho-phosphate (n = 1, 2 non-detects) were detected above the MDL; field specific conductivity (n = 7) and lab specific conductivity (n = 11) were outside the two standard deviation range; cation-anion balance was 5.3 percent.

82-52: field specific conductivity (n = 32) was outside the two standard deviation range;

89-60: flow (n = 18) was outside the two standard deviation range;

89-66: field specific conductivity (n = 8) was outside the two standard deviation range; cation-anion balance was 5.4 percent;

NEWUA Meter #2: ammonia (n = 11) and TDS (n = 23) were outside the two standard deviation range;

Sheba Spring: field pH (n = 32) was outside the two standard deviation range;

Ted's Tub: field specific conductivity (n = 18) was outside the two standard deviation range;

MHC01: sulfate (n = 29) was outside the two standard deviation range;

5. Were DMR forms submitted for all required sites?

Identify sites and months not monitored:

1 st month,	YES [X]	NO []
2 nd month,	YES [X]	NO []
3 rd month,	YES [X]	NO []

6. Were all required DMR parameters reported?

YES [X] NO []

Comments, including identity of monitoring site:

7. Were irregularities found in the DMR data?

YES [X] NO []

Comments, including identity of monitoring site:

UT0023604-001 – September: DMR 30-day average flow (n = 105) and DMR daily max flow (n = 106) were outside two standard deviation range and DMR 30-day average flow was above the reported maximum in the APPX database.

UT0023604-002 – July: DMR 30-day average flow (n = 15) was outside two standard deviation range;

UT0023604-002 – August: DMR 30-day average flow (n = 15) was outside two standard deviation range;

8. Based on your review, what further actions, if any, do you recommend?

Specific conductivity meter might need calibration.

DMR TDS Quarter Average, a parameter required for UT0023604-002, needs to be added to the APPX database.

Numerous values were outside the two standard deviation range. Sample size is usually small, and none of the values are extreme. Recommended action is to watch for trends.